

ABSTRACT OF THE DISCLOSURE

A thermally tuned filter having a pre-stressed membrane. The thermally tuned filter includes a handle layer, a dielectric layer positioned proximate to the handle layer, and a device layer positioned proximate to the handle layer. The device layer includes an optical device. A pre-stressed membrane is positioned proximate to the device layer; a tensile prestress of the pre-stressed membrane increases the natural frequency of the thermally tuned filter.